

Annex III (for information only) - Evaluation of responses to the public consultation on the methodology and assumptions that are to be used in the bidding zone review process and for the alternative bidding zone configurations to be considered

***Note:** The present evaluation of responses is limited to the questions related to the bidding zone review methodology. Questions related to the definition of alternative bidding zone configurations will be evaluated as part of a separate decision, as outlined in sub-section 6.2 of this Decision.*

1 Introduction

On 1 April 2020, ACER launched a public consultation aimed at collecting stakeholders' views on the all TSOs' proposal on the methodology and assumptions and for the alternative bidding zone configurations to be considered for the bidding zone review process pursuant to Article 14(5) of Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity. The consultation was intended to support on-going regulatory discussions prior to the adoption of the methodology. The consultation was closed on 24 April 2020.

2 Responses

By the end of the consultation period, the Agency received responses from 35 respondents.

This evaluation paper summarises all received comments and responses to them. The table below is organised according to the consultation questions and provides the respective views from the respondents, as well as a response from the Agency clarifying the extent to which their comments were taken into account.

ACER highlights that it might have slightly streamlined the text of some observations for the sake of brevity and clarity. ACER strove to respect the content of the responses provided, but to avoid any possible misunderstanding arising from summarising the observations received, the names of the respondents are not explicitly provided in the table below. For transparency reasons, full access to the original and non-confidential responses to the public consultation, including the name of the stakeholder, is provided [here](#).

Respondents' views	ACER views
1. Bidding zone review: Methodology	
Topic 1: Pan-European consistency of the methodology	
Question 1.1.1: Please rate your degree of agreement or disagreement with the following statements: (1- Strongly disagree; 2- Disagree; 3- Neither agree nor disagree; 4- Agree; 5- Strongly agree).	
<p>1. <i>The assumptions and the methodology for the bidding-zone review must remain pan-European to the extent possible. Further consistency between regions must be ensured in the methodology included in the Proposal.</i></p> <p>Respondents' answers (total: 27):</p> <ul style="list-style-type: none"> • 1 – Strongly disagree: 0% • 2 – Disagree: 0% • 3 – Neither agree nor disagree: 0% • 4 – Agree: 52% • 5 – Strongly agree: 48% 	
<p>2. <i>While the proposal may accommodate regional aspects when duly justified, pan-European principles that aim to maximise European welfare should be ensured, e.g. concerning capacity calculation principles. In this regard, the methodology should be consistent with recommendations and decisions of ACER regarding capacity calculation (e.g. the ACER Recommendation on capacity calculation and the ACER decision on the Core capacity calculation methodology).</i></p>	

Respondents' views	ACER views
<p><i>Respondents' answers (total:27):</i></p> <ul style="list-style-type: none"> • 1 – Strongly disagree: 11% • 2 – Disagree: 4% • 3 – Neither agree nor disagree: 0% • 4 – Agree: 59% • 5 – Strongly agree: 26% 	
<p>Question 1.1.2: Please detail below which aspects of the Proposal adequately ensure overall pan-European consistency of the bidding-zone review methodology and should therefore be retained in the final methodology.</p>	
<p>18 respondents provided an answer to this question.</p>	
<p>With regard to this question, the following elements have been listed by stakeholders as to be retained: (i) common scenarios and assumptions, including grid, load and generation data; (ii) common approach to the analysis (modelling chain), taking into account the different market coupling approaches (flow-based or NTC); (iii) maximization of pan-European welfare; (iv) up-to-date approaches for efficient redispatching and countertrading; (v) common approach to cross-border capacity calculation (e.g. 70% requirement).</p>	<p style="text-align: center;">Answer 1</p> <p style="text-align: center;">ACER observes that:</p> <ol style="list-style-type: none"> a. The BZR methodology should ensure, to the extent possible, consistency across the EU. b. Regional specificities on selected aspects may be allowed subject to proper justifications and provided they do not negatively impact EU welfare. c. While simulations may be performed at the regional level, the objective function for any regional computation should still be the maximisation of EU welfare. d. For the sake of legal certainty, the review may consider the envisaged action plans and derogations for the time horizon of the study, subject to the conditions established in the Regulation.

Respondents' views	ACER views
<p>Different views emerge with respect to the 70% requirement: while 1 respondent is in favour of considering any derogations and national action plans in place, 3 other respondents consider that there are no reasons to reduce capacities between BZRs even if the TSOs have established an approved action plan as those action plans are administrative measures to handle structural congestions that could be better handled by bidding zones. 2 respondents also argue than the minimum capacity for DC interconnectors should be 100%.</p>	<p>See Answer 1(d).</p>
<p>5 respondents are in favour of keeping some regional specificities where relevant. According to 2 respondents, if a regional approach is selected, the definition of the BZR regions should be transparent and based on solid and objective justifications with the same criteria to delineate every BZR region. 3 respondents are against the inclusion of any regional element in accordance to CACM and the Electricity Regulation recast.</p>	<p>See Answer 1(a) to 1(c).</p>
<p>Question 1.1.3: Please detail below which aspects of the Proposal hamper overall pan-European consistency of the bidding-zone review methodology, and should therefore be amended in the final methodology.</p>	
<p>22 respondents provided an answer to this question.</p>	
<p>The evaluation criteria leave room for (regional) interpretation and it will be inevitable that regions will come to different outcomes. The review should be based on much larger regions and additional cooperation and coordination between BZRRs must be ensured.</p>	<p style="text-align: center;">Answer 2</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The BZR methodology should ensure, to the extent possible, consistency across the EU. b. Regional specificities on selected aspects may be allowed subject to proper justifications and provided they do not negatively impact EU welfare.

Respondents' views	ACER views
	<p>c. Overall, the methodology should ensure adequate coordination and cooperation among the regions, possibly through dedicated provisions in the methodology.</p>
<p>The evaluation criteria that highlight economic efficiency of different configurations (i.e. quantification and monetization) should be reduced and/or prioritized. Nevertheless, elements that are hard to monetize cannot be ignored, but must still be assessed and quantified to the best extent possible.</p>	<p style="text-align: center;">Answer 3</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Criteria that aim to assess the extent to which the various bidding zones address structural congestions in an efficient manner may be considered in a first step. b. All criteria should, a priori, be analysed, subject to technical limitations. c. The methodology should leave room for a certain degree of flexibility for TSOs to consider qualitative aspects, where relevant and duly justified.
<p>The principles for the assessment of both network congestions and market efficiency should be clear and harmonized in the methodology. This assessment must include the effects on liquidity and competition following any re-delineation of zones. Several principles should be strengthened: (i) target year; (ii) grid data; (iii) weather year; (iv) disaggregation to nodal level.</p>	<p style="text-align: center;">Answer 4</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. The main elements of the scenario (including target year, network data, climate year and disaggregation at nodal level) should be more clearly defined in the methodology. b. In particular, the modelling of welfare changes resulting from the evaluation of the relevant criteria should be defined as precisely as possible.
<p>A higher degree of transparency to enable stakeholders to verify the results and to justify what is deemed to be a negligible impact from neighbouring regions should be ensured.</p>	<p style="text-align: center;">Answer 5</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Higher levels of transparency should be pursued during the review, possibly including a number of provisions in this respect.

Respondents' views	ACER views
	<p>b. In particular, ACER finds it useful to list the minimum set of data to be published, both at an early stage of the review (input data) and at the end of the review (output data).</p>
<p>A consistent modelling approach which is able to capture dynamic effects such as the impact of different bidding zone configurations on locational price signals for investment and divestments, the effects of liquidity in forward and intraday markets and the influence on the level of competition and market concentration should be sought.</p>	<p style="text-align: center;">Answer 6</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Several criteria (including those related to price signals for investments, liquidity, competition and market concentration) require further elaboration. b. The evaluation of these criteria should rely to the extent possible on quantifiable indicators, in combination with qualitative analyses where relevant.
<p>Under Article 13.4 (6b), the analysis should be done for all timeframes, not only for day-ahead.</p>	<p style="text-align: center;">Answer 7</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Different timeframes should be considered where relevant (e.g. to analyse liquidity impacts). b. However, the modelling may require some simplifications that do not allow to model all timeframes. In particular, a balance between complexity and computational tractability should be struck.
<p>For some articles, the scope of the analysis is not clear. The concerned articles are the following: Article 4 (4), Article 10 (3), Article 5-3-a, Article 5-f, Article 6-1-c, Article 6-2, Article 6-3, Article 7-3 and 7-4-d, Article 7-5, Article 9-4, Article 9-6, Article 10-3, Article 12-4, Article 13-4 (6b).</p>	<p style="text-align: center;">Answer 8</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Several articles require further elaboration to clearly describe the analysis to be performed during the bidding zone review.
<p>It is unclear how much time is given to NRAs for reaching a unanimous decision and how much time is given to ACER for making a final call.</p>	<p style="text-align: center;">Answer 9</p> <p>ACER observes that:</p>

Respondents' views	ACER views
	<ul style="list-style-type: none"> a. The timeline for the adoption is defined in Article 14(5) of the Electricity Regulation. b. Moreover, sufficient information needs to be made available for NRAs and ACER to take an informed decision.
<p>Applying the 70% MACZT regardless of potential limitations introduced by regional coordination centres, when available remedial actions are insufficient to ensure secure operation, could be unrealistic and it would then imply a very high level of redispatching and countertrading which may turn out to be inefficient and excessively costly. Moreover, a bidding zone review should not be used to address operational issues of TSOs, which should be solved with the use of operational means available to TSOs.</p>	<p style="text-align: center;">Answer 10</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. The bidding zone review methodology should reflect the expected operational practices as well as the applicable regulation for the time horizon of the study. In this regard, the bidding zone review should shed light on whether the various alternative BZ configurations may fulfil the 70% minimum target in a more efficient manner than the status quo configuration. b. The bidding zone review is multidimensional and operational security is one of the several aspects to be considered.
Question 1.1.4: Please add any comment on the need to ensure pan-European consistency.	
11 respondents provided an answer to this question.	
5 respondents stress the importance to take regional specificities into account. In particular, these regional specificities are necessary to ensure that the results of the study faithfully reflect reality and can be used by TSOs to draw reliable conclusions. The proposed methodology offers the flexibility required in order to accommodate regional specificities and methodologies adopted on regional (CCR) level.	See Answer 1.
4 respondents flag the risk of possible unintended distortions in a pan-EU regulatory framework. In particular, the delimitation of bidding zones does also impact liquidity for zonal price hedging which must be taken into	<p style="text-align: center;">Answer 11</p> <p>ACER observes that:</p>

Respondents' views	ACER views
<p>account. Moreover, changing the bidding zone configuration may have severe welfare redistribution effects. It is important that any update of the bidding zones is subject to a comprehensive study and to an approval by all NRAs of the countries where network operators or network users can be affected by the decision. In addition, severe impact will occur on long-term horizons towards investment perspectives. The proposed criteria focus mainly on short-term system operations, more than long-term system behaviour, in particular considering European objectives. Finally, if bidding zone regions remain in the methodology, it must be clear how the coordination between regions is ensured, e.g. in the case a country is assigned to more than one region.</p>	<ul style="list-style-type: none"> a. The bidding zone review methodology should consider the different impacts according to the envisaged assessment criteria. b. Redistribution of welfare effects may indeed be identified, though the main guiding principle of the review should be the maximisation of EU welfare. c. The extent to which configurations contribute or not to cost-efficient investments should be considered. d. With regard to coordination across regions, see Answer 2.
<p>2 respondents warn against possible detrimental effects in case of very small bidding zones and thus favour also the possibility to merge the existing smaller ones. More specifically, transparency requirements at bidding zone level (e.g. day-ahead bid/offer curves) might lead to competition issues in case of very small bidding zones with resources. Furthermore, flow-based capacity allocation with small bidding zones could impede the development of a functioning cross border intraday trading.</p>	<p style="text-align: center;">Answer 12</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Pursuant to the Electricity Regulation, the review should be based on structural congestions which are not expected to be overcome within the following three years. b. The size of the bidding zone is not in itself a criterion to be considered, rather how the alternative configurations perform with respect to the criteria to be assessed.
<p>4 respondents highlight the need to ensure common practice on the predictability of bidding zones over time. Changing bidding zones within the period between the bi-annual BZR should as the general rule not be allowed. This should only be allowed if extraordinary circumstances occur and be justified.</p>	<p style="text-align: center;">Answer 13</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. The bidding zone review methodology does not establish rules on the frequency of the changes. b. The decision on whether and when changing bidding zones is a prerogative of MSs.

Respondents' views	ACER views
<p>3 respondents emphasize the need for consistency with the longer term exercises such as Ten Year Network Development Plan (TYNDP) and European Resources Adequacy Assessment (ERAA). The BZR should examine different possibilities for an efficient bidding zone structure and evaluate whether TYNDP is up to date or whether it needs to be amended. Ideally, these two processes (BZR and TYNDP) should be merged into one. Instead of taking the current bidding zones and grid plans and system management tools as the basis for new bidding zones, the TSOs need to take a more holistic approach.</p>	<p style="text-align: center;">Answer 14</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The current legal framework does not envisage the same time horizons for the TYNDP and the bidding zone review process. b. In particular, pursuant to the Electricity Regulation, the review should be based on structural congestions which are not expected to be overcome within the following three years.
<p>Finally, 2 respondents express their disagreement with the idea that the BZR should necessary be consistent with ACER decision and recommendation on capacity calculation, as by definition the 70% rule is not motivated by economic efficiency. Proper capacity calculation (including security checks by TSOs) would be more useful to provide an adequate picture of – future - possible situations.</p>	<p style="text-align: center;">Answer 15</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The bidding zone review methodology should reflect both the applicable regulation and expected operational practices for the time horizon of the study. b. ACER's recommendation may bring a value in ensuring common, consistent and unbiased approaches on how to apply certain obligations stemming from the Clean Energy Package.
<p>Topic 2: Transparency and stakeholders' engagement</p>	
<p>Question 1.2.1: Please rate your degree of agreement or disagreement with the following statements: (1- Strongly disagree; 2- Disagree; 3- Neither agree nor disagree; 4- Agree; 5- Strongly agree).</p>	
<p><i>1. Maximum transparency must be guaranteed at all stages of the bidding zone review. In particular, all data, assumptions and relevant parameters used in the review should be published, subject to confidentiality issues and aggregation.</i></p> <p><i>Respondents' answers (total:28):</i></p>	

Respondents' views	ACER views
<ul style="list-style-type: none"> • 1 – Strongly disagree: 0% • 2 – Disagree: 0% • 3 – Neither agree nor disagree: 0% • 4 – Agree: 4% • 5 – Strongly agree: 96% 	
<p>2. There is a need for enhanced involvement of stakeholders during the bidding zone review process. This involvement should be described in the methodology.</p> <p><i>Respondents' answers (total:28):</i></p> <ul style="list-style-type: none"> • 1 – Strongly disagree: 0% • 2 – Disagree: 0% • 3 – Neither agree nor disagree: 0% • 4 – Agree: 25% • 5 – Strongly agree: 75% 	
<p>Question 1.2.2: Please detail below which aspects of the Proposal adequately ensure transparency and stakeholders' engagement, and should therefore be retained in the final methodology.</p>	
<p>14 respondents provided an answer to this question.</p>	

Respondents' views	ACER views
<p>All respondents believe that the proposal/methodology does not take sufficiently into account transparency and stakeholder engagement as many of the assumptions are not publicly available. Furthermore, one respondent considers this proposal an opportunity to build an example about transparency and data publication, in particular in the current dynamic of open-source software and open-data platforms. All data and tools not concerned by confidentiality issues shall be made available.</p>	<p>See Answer 5.</p>
<p>Question 1.2.3: Please detail below which aspects of the Proposal hamper transparency and stakeholders' engagement, and should therefore be amended in the final methodology.</p>	
<p>20 respondents provided an answer to this question.</p>	
<p>The methodology should require mandatory engagement with stakeholders, in particular by involving stakeholders during the BZ process and/or on the question of how to quantify the criteria to assess market efficiency (Article 13.4). Furthermore, the consultation with stakeholders should also include discussions and workshops, especially before finalizing the documents.</p>	<p style="text-align: center;">Answer 16</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Higher levels of engagement with stakeholders should be pursued during the review, possibly including a number of provisions in this respect. b. In particular, regular meetings with stakeholders should be held and a public consultation should be launched.
<p>The assessment should be carried out on the basis of an open-source model and a full dataset should be made available to all stakeholders. An open-source model software would allow researchers and stakeholders to propose improvements to the methodology and develop complementary studies. In addition, Article 16.2 is too restrictive when it comes to data sharing.</p>	<p>See Answer 5.</p>
<p>Question 1.2.4: Please add any comment on the topic of transparency and stakeholders' engagement.</p>	
<p>20 respondents provided an answer to this question.</p>	

Respondents' views	ACER views
<p>16 respondents further stress the need to have a greater degree of stakeholder involvement/engagement (also at a regional and EU level), particularly on BZR process and proposed configurations. Engagement could take the form of webinars, workshops and consultations. Information on these events and consultations should be published early. Moreover, having stakeholder engagement as a part of the methodology and including a dedicated a Stakeholder Advisory Group are also proposed options.</p>	<p>See Answer 16.</p>
<p>3 respondents believe that information such as market data should be reported and shared in an aggregated and non-discriminatory way without violating confidentiality, national regulations or pose risks to efficient market functioning.</p>	<p>See Answer 5.</p>
<p>3 respondents argue that there is a lack of visibility of the process and in particular on analysis results of different bidding zone configurations, how they are evaluated and what lies behind recommendations of different bidding zone configurations.</p>	<p style="text-align: center;">Answer 17</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. There is room to describe the various analyses to be performed in the methodology in a clearer and more explicit manner. b. With respect to transparency and stakeholders' engagement, see Answer 5 and Answer 16.
<p>1 respondent highlights that it is unclear how the role of distribution networks and DSOs is being considered when it comes to BZR.</p>	<p style="text-align: center;">Answer 18</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The selection of network elements, including distribution networks, to be considered for the review, should depend on whether the inclusion of those network elements in the analysis would have significant impacts on the results of the review.

Respondents' views	ACER views
<p>1 respondent comments that regular updates and project timetables should be provided on a website coordinated by ENTSO-E, to make it more accessible for stakeholders. Moreover, 1 respondent remarks that the periods for public consultations should be long enough to ensure sufficient stakeholder participation and proposes a period of at least four weeks/20 working days to prepare feedback.</p>	<p>See Answer 16.</p>
<p>Topic 3: Need to ensure a conclusive bidding zone study</p>	
<p>Question 1.3.1: Please rate your degree of agreement or disagreement with the following statements: (1- Strongly disagree; 2- Disagree; 3- Neither agree nor disagree; 4- Agree; 5- Strongly agree).</p>	
<p>1. Quantifiable, possibly monetised criteria should be the focus of the bidding zone review.</p> <p>Respondents' answers (total:28):</p> <ul style="list-style-type: none"> • 1 – Strongly disagree: 4% • 2 – Disagree: 29% • 3 – Neither agree nor disagree: 4% • 4 – Agree: 25% • 5 – Strongly agree: 39% 	
<p>2. The assumptions and data used as inputs for the bidding zone review should be, as much as possible, checked against reality; the methodology should be based on realistic expectations about the future.</p> <p>Respondents' answers (total:29):</p> <ul style="list-style-type: none"> • 1 – Strongly disagree: 0% 	

Respondents' views	ACER views
<ul style="list-style-type: none"> • 2 – Disagree: 0% • 3 – Neither agree nor disagree: 7% • 4 – Agree: 28% • 5 – Strongly agree: 66% 	
<p>3. While methodological simplifications may be necessary to enable a timely delivery of the bidding zone study, they should not decrease the quality and relevance of the underlying analysis and indicators. In general, methodological simplifications should be sought when they are not expected to impact the results of the study.</p> <p>Respondents' answers (total:27):</p> <ul style="list-style-type: none"> • 1 – Strongly disagree: 0% • 2 – Disagree: 0% • 3 – Neither agree nor disagree: 7% • 4 – Agree: 67% • 5 – Strongly agree: 26% 	
<p>4. The current TSOs' proposal to assess market liquidity mainly focuses on possible changes of liquidity in day-ahead markets. While liquidity of day-ahead markets is important, an assessment of liquidity impacts across all timeframes should be included. In particular additional indicators to capture the impact of a bidding zone reconfiguration on forward markets liquidity in a holistic manner should be considered.</p> <p>Respondents' answers (total:28):</p>	

Respondents' views	ACER views
<ul style="list-style-type: none"> • 1 – Strongly disagree: 0% • 2 – Disagree: 0% • 3 – Neither agree nor disagree: 4% • 4 – Agree: 7% • 5 – Strongly agree: 89% 	
<p>5. In the first bidding zone review pursuant to CACM, significant efforts were put in simulating cross-zonal capacity calculation in a very detailed manner. In view of the 70% minimum target of cross-zonal capacity envisaged in the CEP, which will be taken into account in the bidding zone review, the role of capacity calculation may be less crucial than in the first bidding zone review. As a consequence, some simplifications in simulating cross-zonal capacity calculation should be envisaged, which would allow to increase the efforts on other important aspects of the review.</p> <p>Respondents' answers (total:29):</p> <ul style="list-style-type: none"> • 1 – Strongly disagree: 17% • 2 – Disagree: 21% • 3 – Neither agree nor disagree: 17% • 4 – Agree: 41% • 5 – Strongly agree: 3% 	
<p>6. The current TSOs' proposal for the simulation of short-term welfare effects seems to exclusively rely on the changes in generation dispatch and related costs, while demand-side response is mostly disregarded.</p>	

Respondents' views	ACER views
<p><i>Given that a bidding zone configuration may have relevant impacts on the patterns of day-ahead market prices, DSR (including day-ahead demand elasticity) should be more robustly considered.</i></p> <p>Respondents' answers (total:27):</p> <ul style="list-style-type: none"> • 1 – Strongly disagree: 0% • 2 – Disagree: 0% • 3 – Neither agree nor disagree: 26% • 4 – Agree: 33% • 5 – Strongly agree: 41% 	
<p>7. <i>The current TSOs' proposal for the simulation of short-term welfare effects seems to highly depend on the difference between the costs of scheduling generation (and residually demand) units in day-ahead markets and the costs of (re)scheduling generation (and residually demand) units in the re-dispatching timeframe. Some assumptions included in the Proposal such as considering full cross-zonal coordination for re-dispatching or the insufficient consideration of the difference between the costs incurred in day-ahead and the re-dispatching timeframe may lead to conclude that all alternative bidding zone configurations deliver the same short-term welfare results as the status quo configuration. Such strong assumptions should be revised and aligned with the envisaged reality for the time horizon of the study as much as possible.</i></p> <p>Respondents' answers (total:28):</p> <ul style="list-style-type: none"> • 1 – Strongly disagree: 11% 	

Respondents' views	ACER views
<ul style="list-style-type: none"> • 2 – Disagree: 7% • 3 – Neither agree nor disagree: 21% • 4 – Agree: 61% • 5 – Strongly agree: 0% 	
<p>Question 1.3.2: Please detail below which aspects of the Proposal adequately ensure the bidding zone review to be conclusive and should therefore be retained in the final methodology.</p>	
<p>11 respondents provided an answer to this question.</p>	
<p>The process should be more strictly bound to the rules. All aspects which ensure that bidding zones will be defined in a manner to ensure market liquidity, efficient congestion management and overall market efficiency should be retained and enforced if required, especially focusing on a long-enough time horizon according to Art. 5 (1) and Art 13.4 (19).</p>	<p style="text-align: center;">Answer 19</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The focus of the bidding zone review should be in line with the different provisions including in the Regulation, describing how bidding zones should be evaluated. b. In particular, the Electricity Regulation prescribes that the bidding zone review methodology should be based on structural congestions which are not expected to be overcome within the following three years. c. See also Answer 3 and Answer 20.
<p>The methodology is poor when it comes to describing that the BZR process shall conclude and recommend on BZ configuration and the basis for such recommendation. Article 3, 3(d) is the only part that describes that the outcome of the analysis shall be conclusive.</p>	<p style="text-align: center;">Answer 20</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The bidding zone review methodology should be clearer and more explicit on the process to be followed to derive conclusions, while leaving a certain degree of flexibility where relevant.

Respondents' views	ACER views
<p>In order to be in compliance with the provisions in the European legislation, at least all criteria listed in Art 33 CACM need to be part of the final methodology and all criteria need to be treated equally. To ensure a robust model all criteria must be included, even if not all the criteria can be monetized easily. The criteria network security might be considered as non-relevant, while effect on operational complexity and speed should be added. A criteria reflecting the European climate and energy targets should also be added. Furthermore, a qualitative indicator is preferred to a non-robust quantitative one as criteria are hard to monetize and might bring to a misleading single figure.</p>	<p style="text-align: center;">Answer 21</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The bidding zone review methodology should strive to make the following principles compatible: <ol style="list-style-type: none"> i. Be in line with the objectives and criteria prescribed in the Regulation. ii. Possibly focusing on certain aspects in light of objectives envisaged for the review process in the Regulation (see Answer 3). iii. Seek comparability to the extent possible. iv. Some elements referring to climate targets may be added.
<p>Question 1.3.3: Please detail below which aspects of the Proposal prevent the bidding zone review from being conclusive and should therefore be amended in the final methodology.</p>	
<p>28 respondents provided an answer to this question.</p>	
<p>Market liquidity and overall efficiency (especially for forward contracts) is not adequately taken into account. Article 4(4) favours too much compliance with 70% criterion (Article 16(8) of IME) at the cost of market liquidity and overall market efficiency. Therefore, it allows TSOs to ignore overall market efficiency issues as long as the application of 70% criterion is guaranteed. Furthermore, the request of NRAs to model flow-based market coupling results proved particularly unhelpful as it dramatically increased the complexity of the analysis, while focusing it on the day-ahead timeframe and foregoing the forward, intraday and balancing markets.</p>	<p style="text-align: center;">Answer 22</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The Electricity Regulation establishes a link between the fulfilment of the 70% criterion and the bidding zone review process; as such, the 70% criterion cannot be ignored and sufficient relevance to it should be given. b. The analysis of certain criteria, e.g. market liquidity, should be strengthened in the bidding zone review methodology.

Respondents' views	ACER views
<p>Other criteria should be taken into account, especially non-monetized ones. In particular, 2 respondents suggest to add two criteria linked to social and political costs, whereas 1 respondent proposes to include key qualitative factors like market efficiency, market integration and robustness in size. Furthermore, 5 respondents underline that Art. 13/ 13.2 (8c) iii) should be amended so that the final recommendation is based on a balanced view between monetized benefits and the non-monetized criteria.</p> <p>On the other hand, 3 respondents argue that too many criteria are included and therefore the evaluation process can lead to inconclusive evaluations.</p>	<p>See Answer 21.</p>
<p>Art. 13 / 13.4 (15) on the impact on the operation and efficiency of the balancing mechanisms and imbalance settlement processes includes only impacts on reserve requirements. The adequacy of the required reserves in each, and especially small bidding zones should be analysed as well.</p>	<p style="text-align: center;">Answer 23</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The analysis of the impact on the operation and efficiency of the balancing mechanisms and imbalance settlement criterion should be further elaborated and should be performed more accurately, as long as technically feasible.
<p>In Article 9(6), it is recommended that DC load flow analysis is used in the operational security analysis. However, it is questionable that a DC load flow analysis is accurate enough and therefore an AC load flow analysis should be included as a requirement. Additionally, dynamic analysis is not mentioned in Art. 9 at all even though for example in the Nordic synchronous area dynamic oscillations often set the limits and thus also dynamic analysis would be needed.</p>	<p style="text-align: center;">Answer 24</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. As far as technically possible, the operational security analysis shall be conducted by means of an AC load-flow, whereas a DC load-flow may only be used as a fall-back. b. A dynamic analysis would pose too many additional computational challenges in comparison with the potential benefits of such an approach. Nonetheless, under an AC load-flow calculation, phase angle violations may also be considered in the operational security analysis.
<p>The RES integration and the analysis of integrated amount of energy from RES and qualitative evaluation of long-term effects is not a relevant criterion.</p>	<p style="text-align: center;">Answer 25</p> <p>ACER observes that:</p>

Respondents' views	ACER views
<p>The criteria chosen should be objective and neutral and should not prioritize a technology compared to another one. The adjunction of such a “political” criteria in addition to the one foreseen in CACM guidelines is thus questionable. There are also other means than the bidding zones reconfiguration to tackle the challenge of RES integration in the system.</p>	<ul style="list-style-type: none"> a. The bidding zone review methodology should be technology-agnostic. b. Assessing how climate targets may be achieved in a cost-efficient manner may be considered within the bidding zone review.
<p>Redispatch costs should be reconsidered as they have a big impact on the welfare. Unrealistic assumptions, such as full coordination of redispatch across borders, should be avoided, as this will underestimate the impact of redispatch costs on the welfare. To assess welfare, the full system costs must be taken into account. Redispatch costs alone are not an indicator for an inefficient system, they must be related to the dispatch costs and congestion income. Furthermore, a model based on full cross-zonal coordination for redispatching should be corrected with appropriate considerations about actual limitations on cross-zonal flows.</p>	<p style="text-align: center;">Answer 26</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Any welfare analysis should consider both the market dispatch and the redispatch costs, together and not in an isolated manner. b. The modelling of redispatching and other aspects should be based on realistic assumptions about the future.
<p>The timeframe of the bidding zone review should be extended to 5 years to make sure that upcoming grid development to overcome structural congestions will be properly considered as well as considering forward positions entered into by market participants and giving certainty to investors.</p>	<p style="text-align: center;">Answer 27</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. The bidding zone review methodology has to follow the provisions included in the Electricity Regulation, including those referring to the time horizon of the study.
<p>Transaction costs and transition costs are two key criteria that should be considered separately. Stability is key to limit financial risk, and therefore transition costs (as the amount of potential stranded costs associated with a change in configuration) should be considered as a major dimension in the bidding zone review.</p>	<p style="text-align: center;">Answer 28</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Transition and transaction costs should be analysed separately. b. Transition costs should be limited to what it is inherently linked to specific bidding zone changes.

Respondents' views	ACER views
<p>The modelling of renewables is fundamental for meaningful results, as their share will increase in the power system in the target year time frame and beyond. It is therefore important that the assumptions are clear and reflect the bidding behaviour of renewable assets. For instance, if weather indicators are used to assess the load factors for wind only, this will ignore economic reasons to switch off RES in times of negative prices. This can lead to wrong assessments of grid load and redispatch requirement in times of high RES-input.</p> <p>Furthermore, the need to include demand-side response and storage is also stressed. If these new technologies are not taken into account in a bidding zone review, the outcome might suggest that a bidding zone split is more efficient, whereas the development of demand-side flexibility in combination with grid extension might indicate the opposite.</p>	<p style="text-align: center;">Answer 29</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The modelling of the different technologies should be as realistic as possible, subject to technical limitations. b. In markets based on marginal pricing, considering that technologies bid based on their marginal cost may strike a good balance between realistic modelling and feasibility of the analysis. c. The modelling of the bidding behaviour of renewable assets could be considered, as long as such modelling can be applied in a consistent and unbiased manner. d. Storage and demand-response, both implicit and explicit, should be also adequately modelled.
Question 1.3.4: How do you think that the inclusion of experts' views should be organised and could help ensure a conclusive bidding zone review?	
<p>24 respondents provided an answer to this question.</p>	
<p>9 respondents suggest that experts' views should be made public and discussed with the stakeholders before including them in the review. Transparency is needed on which criteria are assessed based on experts views and on the way expert views are considered, in order to gain stakeholders' trust in the experts' views and in the bidding zone review results. Market participants should be able to react to such views in form of public consultations.</p>	<p>See Answer 5 and Answer 16.</p>
<p>11 respondents consider that experts should represent all type of stakeholders and the market as a whole, not only the TSOs. Experts from major market players should be able to add value both regarding assumptions and</p>	<p style="text-align: center;">Answer 30</p> <p>ACER observes that:</p>

Respondents' views	ACER views
<p>assessments of BZ configurations. Experts' panel should include perspectives of different groups of market players (power producer, industrial consumers, power exchanges, traders etc.), members from the producers, DSOs and the industry, other non-TSO experts from more neutral stakeholder like analysts and/or research institutions could also add value to the process.</p>	<ul style="list-style-type: none"> a. Public consultation and regular stakeholders' engagement may be an adequate manner to enrich the analysis and ensure transparency. b. The analysis of some aspects may benefit from joint studies conducted at EU level. c. See also Answer 5 and Answer 16.
<p>4 respondents underline that experts' view are important to assess the results of a quantitative bidding zone review and to put them into the context of political and regulatory realities and other constraints that a technical model cannot include. In this respect, the bidding zone review conducted by TSOs should serve as a strong input for a bidding zone delineation but should preferably not take into account national borders and political constraints from the beginning.</p>	<p style="text-align: center;">Answer 31</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. The bidding zone review should be neutral and unbiased. b. Also, see Answer 30.
<p>2 respondents reckon that the status quo is one possible conclusion which is perfectly admissible, and that may result from the inability to identify a BZ configuration that would rank better than the current one on all criteria (possibly weighted). Such a case should not be considered as an "inconclusive BZR".</p>	<p style="text-align: center;">Answer 32</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Maintaining the status quo configuration is a possible outcome of the bidding zone review, but should preferably not be the result of the inability to conclude, rather the outcome of a sound analysis.
<p>Question 1.3.5: Please specify how specific the final recommendation of the TSOs should be:</p> <ul style="list-style-type: none"> a. TSOs should specify whether the bidding zone configuration should be maintained or changed and in case of the latter, specify their preference for one alternative bidding zone configuration. b. TSOs should specify whether the bidding zone configuration should be maintained or changed and then present a number of possible options, highlighting the benefits and shortcomings of different options, subject to the considerations of other aspects (e.g. implementation timeline, minimum 'lifetime' of the alternative bidding zone configuration to ensure the benefits exceed the transitional costs, measures to mitigate certain impacts, etc.). 	

Respondents' views	ACER views
<p>c. Other possible ways of presenting the final recommendation. Please specify. <i>Respondents' answers (total:28):</i></p> <ul style="list-style-type: none"> • a: 4% • b: 68% • c: 29% 	
<p>7 respondents provided an answer to this question.</p>	
<p>All respondents believe that TSOs should present a number of possible options, which can also include maintaining the current bidding zone configuration, highlighting the benefits and shortcomings of different options. In addition, 4 respondents further support the possibility for the TSOs of a given bidding zone to only submit the status quo configuration if sufficient justification is provided on the absence of structural congestions. In any case, if none of the alternative configuration presents sufficiently clear and robust benefits over the long-term, the status quo should be maintained.</p>	<p style="text-align: center;">Answer 33</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. In line with the Regulation, a bidding zone review should be carried out in light of the existence of structural congestions. Alternative bidding zone configurations should be then expected where structural congestions exist. b. With regard to possible outcomes of the review, see Answer 32.
<p>Question 1.3.6: Please add any comment on the topic of ensuring a conclusive bidding zone review, which adequately supports the decision making process.</p>	
<p>31 respondents provided an answer to this question.</p>	
<p>4 respondents argue that TSOs might be biased towards status quo configurations (changes result in additional work and problems for them) and therefore the decision should be made by regulators which might be more neutral.</p>	<p style="text-align: center;">Answer 34</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. Based on the Regulation, the decision on whether to change or not the bidding zones, lays on MSs.

Respondents' views	ACER views
<p>12 respondents suggest that TSOs should present a subset of similar performing candidate configurations with thorough analysis and explanation of the pros and cons. The preference should be based on IME and CACM criteria as well as on market liquidity and efficiency. Several of the evaluated bidding zone configurations may perform comparably well overall, but show different trade-offs between the indicators (e.g. day ahead costs versus redispatch costs).</p>	<p style="text-align: right;">Answer 35</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. The bidding zone review methodology indeed aims to analyse alternative bidding zone configurations based on the objectives and criteria prescribed in the Regulation. b. See also Answer 21.
<p>2 respondents argue that BZ evolution could compromise the development of assets despite their economic and environmental relevance. It is essential to build a holistic overview of the system interest, in particular in the long run, especially by better taking into account financial risks for investors of all kinds. There is a higher risk of not receiving any conclusions from the BZR if concerned TSOs cannot agree on one solution.</p>	<p style="text-align: right;">Answer 36</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. Investments should be cost-efficient. An efficient bidding zone configuration should provide efficient price signals to incentivise cost-efficient investments in both network infrastructure, and generation or load units.
<p>1 respondent suggests to create screening indicators to determine whether alternative configurations for a given bidding zone should be assessed or not. This is useful in limiting the number of bidding zones concerned by the review and the number of alternative configurations to study.</p>	<p>See Answer 33.</p>
<p>1 respondent further adds that the bidding zone review should make recommendations not only based on a single point in time; on the contrary, it should assume a forward-looking perspective including foreseeable developments within a relevant number of years in the future. The recommended bidding zone configuration should be optimal for years thereafter.</p>	<p style="text-align: right;">Answer 37</p> <p>ACER observes that:</p> <ul style="list-style-type: none"> a. The Electricity Regulation prescribes that the bidding zone review methodology should be based on structural congestions that are not expected to be overcome in the next three years.

Respondents' views	ACER views
<p>1 respondent points out potential inconsistencies in the statements given in the public consultation: agreeing with statement 7 in Table 1.3.1 would imply that TSOs should not assume a common pan-European redispatch in the bidding zone review as no such market currently exists. At the same time, agreeing with statement 6 would imply that TSOs should account for large-scale implementation of demand-side response and day-ahead price elasticity in the bidding zone review, however, such demand-side flexibility also does not yet exist.</p>	<p style="text-align: center;">Answer 38</p> <p>ACER observes that:</p> <ol style="list-style-type: none"> a. The consideration of the various elements, should be based on realistic assumptions about the future. b. In this respect: <ol style="list-style-type: none"> i. Based on existing studies, some level of demand flexibility at typical market prices already exists today. ii. Coordination in cross-zonal redispatch should progressively increase in the next coming years, and realistic expectations on this level of coordination for the time horizon of the study should be considered.
<p>1 respondent further emphasizes that transparency should be made on those TSOs and countries getting the benefits and those getting the costs of a bidding zone reconfiguration, i.e. transfers between those supposed to win and those supposed to lose.</p>	<p>See Answer 11.</p>

3 List of respondents

Organisation	Type
50Hertz Transmission GmbH	TSO
Amprion GmbH	TSO
AS Latvenergo	Energy company
Bundesverband der Energie- und Wasserwirtschaft (BDEW)	Association
Danish Energy	Association
EDF	Energy company
Edison S.p.A.	Energy company
Eesti Energia AS	Energy company
Enefit Lithuania	Energy company
Energy Norway	Association
ENTSO-E	Association
EPEX SPOT SE	Power exchange
Eurelectric	Association
European Energy Exchange AG	Power exchange
European Federation of Energy Traders (EFET)	Association
Europex	Association
Finnish Energy	Association
Fortum Oyj	Energy company
German Federal Ministry for Economic Affairs and Energy	Governmental organisation
IFIEC Europe	Association

Organisation	Type
Ignitis group	Energy company
Ignitis Latvija	Energy company
Ignitis Lithuania	Energy company
Market Parties Platform (MPP)	Association
Nord Pool Market Surveillance	Power exchange
Norsk Hydro	Energy company
RWE Supply & Trading GmbH	Energy company
SFE Produksjon	Energy company
SIA Enefit	Energy company
Swedenergy	Association
TenneT TSO GmbH	TSO
Terna S.p.A.	TSO
TransnetBW GmbH	TSO
Union française de l'électricité (UFE)	Association
Vattenfall AB	Energy company